U.S. Department of the Interior
Bureau of Land Management (BLM)

Determination of NEPA Adequacy (DNA)

Office: Cascades Field Office (FO)-Salem District Office

Tracking Number: DOI-BLM-ORWA-S040-2016-0033-DNA

Case file/Project Number: N/A

Proposed Action Title/Type: Salmon River Restoration Project

Location/Legal Description: T. 2S, R. 6E, Sections 25 and 36; T. 2S, R. 7E, Section 31, Willamette Meridian.

Applicant (if any): N/A

A. Description of the DNA Proposed Action and any applicable mitigation measures

The Proposed Action is to implement the Salmon River Restoration (Project). The Project is located within the Sandy River 5th Field Watershed, T. 2 S., R. 6 E., Sections 25 and 36; and T. 2S, R. 7E, Section 31, Clackamas County. The Project is proposed on three miles of the lower Salmon River before it flows into the Sandy River near the town of Welches, OR. Restoration actions would be implemented on Congressionally Reserved lands in the Mt. Hood Scenic Corridor within the Cascades Field Office.

Due to the historic removal of trees and logs from the channel of the Salmon River, and harvest of stream side trees, large wood (LW) levels in the lower Salmon River are inadequate to form complex stream habitats, and provide high quality spawning and rearing habitat for federally listed salmon and steelhead (RDG 2009, SRBWG 2007, USDA 1995). The amount of and complexity of side channel habitat and connectivity to main channel flows are lower than that expected for the site both because of low amounts of LW, and the historic effects of stream channelization and diking (RDG 2009, SRBWG 2007). Coho salmon abundance is particularly dependent on the amount and quality of rearing habitat in side channels and floodplain habitats (Roni et al. 2006, Morley et al. 2005, Nickelson et al. 1992). Amount of gravel dominated areas for spawning is lower than expected for the site because of the lack of LW and channel complexity (RDG 2009, SRBWG 2007, USDA 1995).

Lower Columbia River (LCR) spring Chinook salmon, coho salmon, and winter steelhead trout are all listed as threatened under the Endangered Species Act of 1973 (ESA). Winter steelhead trout and coho salmon populations in the Sandy River subbasin of the LCR evolutionary significant unit (ESU) are considered to be at high risk of extinction, whereas the Sandy River spring chinook salmon population has a moderate risk of extinction (McElhany et al. 2007). Restoration of aquatic habitats in the Salmon River is needed to increase production of threatened salmon and steelhead populations and thereby reduce their risk of extinction (McElhany et al. 2007).

The primary objectives of the Project are to increase access to side channel habitats of the lower Salmon River; increase aquatic habitat complexity; provide high quality spawning and rearing habitat in main channel and side-channel habitats for anadromous fish; and improve channel and floodplain function to maintain complex aquatic habitat over time. Large wood structures (wood jams) will be constructed to restore channel and floodplain function and restore connectivity to side channels and off channel habitats. Large boulders will

be added to riffles to enhance side channel connectivity and provide adult holding areas, and juvenile steelhead foraging habitat. Fill at inlets to several side channels and off-channel habitat areas resulting from past diking and flood control efforts will be removed to improve side channel and off channel habitat connectivity. This Project will also enhance juvenile fish habitat by constructing large wood structures at locations where they would be naturally formed by river processes if wood supply and transport processes were functioning normally.

The Project would include the following activities:

1. Transport by truck up to 400 logs and trees from BLM's Horning Seed Orchard, and 70 cubic yards of large boulders from off-site source areas and deliver to staging areas at Miller Quarry and Hood Village RV Resort adjacent to individual project sites.
2. Construct 13 large wood jams on the lower Salmon River at sites adjacent to Miller Quarry and Hood Village RV Resort (see Appendix A – site map) utilizing the staged logs and trees. Appendix B displays draft designs for the wood jams. Construction will begin by excavating bank materials at the project site to a maximum river scour depth of 9-10 feet below bank full elevation. To prevent fine sediment being washed into the river the construction site will be isolated from the main current utilizing sediment curtains or pumps to keep the excavation from backfilling with ground water. Logs and trees will then be placed individually into the excavation by the excavator operator under the direction of Bair, LLC, in coordination with BLM project leads. As large wood is placed the structure will be stabilized by backfilling with the removed bank material and ballasted with additional logs and substrates to over a 100-year return interval flow stage. Small woody material will be placed to help create the appearance of a "natural log jam" and disturbed surfaces in the project area will be smoothed and replanted with native species adapted to local conditions.
3. Restore or enhance connectivity to two side channels and two off-channel habitat areas through the construction of large wood jams at or adjacent to the side channel inlets and outlets or addition of boulders to adjacent riffles.
4. Removal of 850 cubic yards of fill material (resulting from past flood control activities) at entrances to two side channels and two off channel habitat areas.

To implement the Project BLM would delineate the large wood staging areas in existing areas of disturbance adjacent to the river. BLM would partner with The Freshwater Trust (TFT) to complete the project through an existing assistance agreement. TFT would hire a Bair, LLC to provide a structure site field review and an appropriate design for each wood jam, boulder riffle, and side channel and off-channel habitat restoration. TFT would hire Aquatic Contracting to deliver boulders and large wood to staging areas, and construct the 2016 restoration actions.

The Project will adhere to the project design features outlined in EA Sections 2.2.1 and 2.3.1 of the Cascades Field Office Salmon River Habitat Restoration Project Environmental Assessment (EA) (DOI-BLM-ORWA-SO40-2010-0002-EA) and Finding of No Significant Impact (FONSI).

All project actions are covered by BLM's programmatic Biological Opinion (ARBO II), and programmatic ACOE and DSL permits for aquatic restoration projects. BLM has pre-notified NMFS, ACOE, and DSL regarding the planned 2016 restoration actions on the Salmon River. See Salmon River Restoration, Salmon River – Lower Miller Quarry Side Channel, Salmon River – Hood Village Alcoves, and Salmon River – Ruff-N-Ready Side Channel pre-notification. Project design features and criteria in NMFS ARBO II, NMFS WOP, and USFWS ARBO II biological opinions will also be adhered to during project activities.

Design criteria for large wood and boulder placement and tree removal for large wood projects can be found in BO NWR-2013-09664 (NMFS ARBO II), section 1.3.3, # 22 and BO 01EOFW00-2013-F-0090 (USFWS ARBO II), section 1.3.3, #22/e. Design criteria for off- and side-channel restoration can be found in BO NWR-2013-09664 (NMFS ARBO II), section 1.3.3, #25.

Project actions implemented in 2016 are the same as those analyzed in the 2010 Salmon River Habitat Restoration Project EA (2010 EA). That EA anticipated project actions would be completed by 2015. This DNA was prepared to document that the same actions and environmental effects will occur as that analyzed in the EA, but that restoration will be implemented over a longer time frame (into 2016-2017) than anticipated in the 2010 EA.

B. Conformance with the Land Use Plan (LUP)

LUP Name: Salem District Record of Decision and Resource Management Plan (1995 RMP)
Date Approved: March 1995

As amended by the Record of Decision for Amendments to the Survey and Manage, Protection Buffer, and Other Mitigation Measures Standards and Guidelines, dated January 2001 (SM/ROD) with subsequent Annual Species Reviews. These actions comply with the SM/ROD as described above and utilize the December 2003 species list. This list incorporates species changes and removals made as a result of the 2001, 2002, and 2003 Annual Species Reviews (ASR) with the exception of the red tree vole. For the red tree vole, the Ninth Circuit Court of Appeals in KSWC et al. v. Boody et al., 468 F.3d 549 (9th Cir. 2006) vacated the category change and removal of the red tree vole in the mesic zone, and returned the red tree vole to its status as existed in the 2001 ROD Standards and Guidelines, which makes the species Category C throughout its range.

LUP Conformance:

The Project is in conformance with the LUP, even though it is not specifically provided for, because it is clearly consistent with the following LUP decisions (objectives, terms, and conditions) and, if applicable, and implement plan decisions:

- RMP Aquatic Conservation Strategy (RMP p. 5,7):
  - Maintain and restore the distribution, diversity, and complexity of watershed and landscape-scale features to ensure protection of the aquatic systems to which species, populations and communities are uniquely adapted.
  - Watershed restoration will be an integral part of a program to aid recovery of fish habitat, riparian habitat and water quality.
- RMP Fish Habitat Objectives (RMP p. 27):
  - Design and implement fish habitat restoration and enhancement activities in a manner that contributes to attainment of Aquatic Conservation Strategy objectives.

C. Identify the applicable NEPA document(s) and other related documents that cover the Proposed Action.

List by name and date applicable NEPA documents that cover the Project.

USDI Bureau of Land Management May 2010 Salmon River Habitat Restoration Project EA (DOI-BLM-OR-S040-2010-0002-EA), FONSI, and Decision Record (DR).

List by name and date other documentation relevant to the Project (e.g., source drinking water assessments, biological assessment, biological opinion, watershed assessment, and monitoring the report).

- USDI Fish and Wildlife Service. July 2013. *Programmatic Consultation for Aquatic Habitat Restoration Activities in Oregon and Washington BO# 01EOFW00-2013-F-0090*
- National Marine Fisheries Service. April 2013. *Biological Opinion and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for Aquatic Restoration Activities in Oregon and Washington* NMFS:2013/NWP-2013-9664
- National Marine Fisheries Service. 2010. *Biological Opinion for Programmatic Activities of USDA Forest Service, USDI Bureau of Land Management, and Coquille Indian Tribe in Western Oregon* NMFS No. 2010/02700
- SRBWG (Sandy River Basin Work Group). 2007. *Sandy River Basin Aquatic Habitat Restoration Strategy: an anchor habitat-based prioritization of restoration opportunities* Oregon Trout, Portland, Oregon (SRBWG 2007.)
- USDA. Forest Service. 1995. Salmon River Watershed Analysis. Mt. Hood National Forest. Sandy, Oregon (USDA 1995).

D. NEPA Adequacy Criteria

1. Is the current Project substantially the same action (or is a part of that action) as previously analyzed?

Yes, the current Project is part of the action analyzed and selected in the Salmon River Habitat Restoration EA (see DOI-BLM-OR-S040-2010-0002-EA) and Decision Record (DR).

The Project is within the analysis area for the 2010 EA. The 2010 EA analyzed the effects to resources on the lower Salmon River from a range of watershed restoration actions, including in-stream structure placement utilizing excavators, side-channel and off channel habitat reconnections, and addition of boulders to riffles (EA Section 2.2, pp. 15-18, and Section 2.3, pp. 26). The Project falls into *Large Wood Placement* and *Restore Side Channel Flows* categories, as described in the 2010 EA Section 2.2 and DR Section 2.1, pp. 3-9.

2. Is the range of alternatives analyzed in the existing NEPA document(s) appropriate with respect to the current Project, given current environmental concerns, interests, resource values, and circumstances?

Yes, the range of alternatives analyzed in the 2010 EA is appropriate with respect to the Project. During the internal and external scoping process for the EA, one additional alternative was identified that would meet the purpose and need of the EA project and have meaningful differences in effects from the 2010 EA Proposed Action (EA Section 2.1, pp. 14). The 2010 EA analyzed the effects of the Proposed Action, Action Alternative 1, and the No Action Alternative. A combination of the 2010 EA Proposed Action and Action Alternative 1 was chosen as the Selected Action in the DR (DR Section 2.0, pp. 3). The Selected Action encompasses the 2011-2015 actions, which includes the Project described in this DNA (EA Section 2.2 and 2.3, DR Section 2.0, pp. 3), making the range of alternatives considered appropriate.

The environmental analysis was completed in May 2010 for the actions that were to be completed from 2011 to 2015. Although the date of completion analyzed was 2015, the analysis is still appropriate given the current environmental concerns, interests, resource values, and circumstances, which are substantially the same currently as those analyzed in the 2010 EA. There would be no known other or additional

concerns, interests, or resource values associated with the Project that were not previously addressed in the 2010 EA.

3. **Is the existing analysis adequate and are the conclusions adequate in light of any new information or circumstances? Can you reasonably conclude that all new information and all new circumstances are insignificant with regard to analysis of the Project?**

   Yes, the analysis was completed in May of 2010 and utilized the most current information and circumstances for the analysis area. Although the action completion date range that was analyzed was 2011 to 2015, the 2010 analysis is still adequate since site conditions, resource values, environmental concerns, and project circumstances have not substantially changed in the past year. The existing analysis and conclusions are adequate and there is no new information that is significant with regard to the analysis of the current Project.

4. **Are the direct, indirect, and cumulative effects that would result from implementation of the new Project similar (both quantitatively and qualitatively) to those analyzed in the existing NEPA document?**

   Yes, the direct, indirect, and cumulative impacts of the Project are the same as those identified and analyzed in the 2010 EA. The Project is the same as that of the Selected Action in the DR and analyzed in the 2010 EA. The only difference is the 2010 EA anticipated that all restoration actions on BLM lands on the lower Salmon River would be completed by 2015. This DNA discloses that restoration actions would continue into 2016 and likely into 2017. The Project location continues to be identical to that disclosed in the 2010 EA and site conditions, resource values, environmental concerns, and project circumstances have not substantially changed (Map 1, p.10).

   Potential adverse direct and indirect effects to water quality due to increased sediment in rivers and streams because of the placement of structures with excavators are the most relevant to the Project. The effects to water quality will be short term increases in fine and coarse sediment due to placement operations, and an increase in turbidity occurring during the placement of structures, which would decrease to natural levels after the first winter after placement of the structures (EA Section 3.7, p. 39-41). Effects to water quality from the current Project would be substantially similar to the analyzed impacts in the 2010 EA, which would be minimized with the seasonal restrictions, project design features (EA Section 2.2.1 and 2.3.1, pp. 24-27).

   Cumulative effects of the Project would be substantially similar to those effects disclosed in the 2010 EA. The 2010 EA describes the cumulative effects of in-stream structure placement as follows:

   EA Section 3.7.2, p. 41
   Cumulatively this action would add to the recovery of aquatic habitat, sediment transport regime and functional stream channels in the Salmon River. This could contribute to a long term reduction in the turbidity and stream temperature.

   No new or additional impacts are anticipated from the implementation of the Project other than those analyzed in the 2010 EA.

5. **Are the public involvement and interagency review associated with existing NEPA document(s) adequate for the current Project?**

   Yes, public involvement and interagency review associated with the 2010 EA is adequate for the current Project. Project scoping and EA public review/comment periods were completed for the 2010 EA.

Scoping letters describing the 2010 EA were sent to federal, state, and municipal government agencies, tribal authorities, and individuals, including all adjacent land owners, on February 11, 2010 and April 13, 2010.

Five scoping comments were received on the project (EA Section 1.4, p. 14 and DR Section 6.1, p.13). The 2010 EA and draft FONSI were made available for public review from May 19th to June 4th, 2010. One comment letter in support of the project was received during the comment period (DR Section 6.2, p.13).

Along with project scoping and EA comment periods, the BLM will continue to provide information to the public on restoration projects. The BLM will notify the public of individual restoration projects through the Salem District Quarterly Project Update newsletter and the ePlanning website where DNA's for the projects will be posted. The ePlanning website for this Project and associated DNA can be found at the following link: www.tinyurl.com/SalmonRiverRestorationDNA

References

McElhany, P., M. Chilcote, J. Meyers, and R. Beamsderfer. 2007. Viability status of Oregon salmon and steelhead populations in the Willamette and lower Columbia Basins. NOAA, Northwest Fisheries Science Center Report. Seattle, WA.

Morley, S.A., P.S. Garcia, T.R. Bennett, and P. Roni. 2005. Juvenile salmonid (Oncoryhnchus spp.) use of constructed and natural side channels in Pacific Northwest rivers. Canadian Journal of Fisheries and Aquatic Sciences 62:2811-2821.

Nickelson, T.E., J.D. Rodgers, S.L. Johnson, and M.F. Solazzi. 1992. Seasonal changes in habitat use by juvenile coho salmon (Oncoryhnchus kisutch) in Oregon coastal streams. Canadian Journal of Fisheries and Aquatic Sciences 49:783-789.

RDG (River Design Group, Inc.). 2009. Salmon River Restoration Plan. Prepared for Sandy River Basin Partners, submitted to The Freshwater Trust. Portland, Oregon.

Roni, P., S.A. Morley, R. Garcia, C. Detrick, D. King, and E. Beamer. 2006. Coho salmon smolt production from constructed and natural floodplain habitats. Transactions of the American Fisheries Society 135:1398-1408.

E. Person/Agencies/BLM Staff Consulted

Name	Role or Resource Represented	Initials	Initialed
Whitney Wirthlin	NEPA Review	WPW	7/14/16
Belle Verbics	Supervisor	BV	7/14/2016
Corbin Murphy	Wildlife	CJM	07/06/2016
Terry Fennell	Botany	TCF	7/11/2016
Bruce Zoellick	Fisheries	BZ	7/14/2016
Patrick Hawe	Hydrology/Water Quality/Soils	WPH	6/29/16
Heather Ulrich	Cultural Resources	HU	07/14/2016

CONCLUSION

DNA Worksheet For Salmon River Restoration Project DOI-BLM-ORWA-S040-2016-0033-DNA 6

Based on the review documented above, I conclude that this proposal conforms to the applicable land use plan and that the existing NEPA documentation fully covers the Proposed Action and constitutes BLM's compliance with the requirements of NEPA.

Signature of Project Lead

Signature of NEPA Coordinator

Signature of the Responsible Official

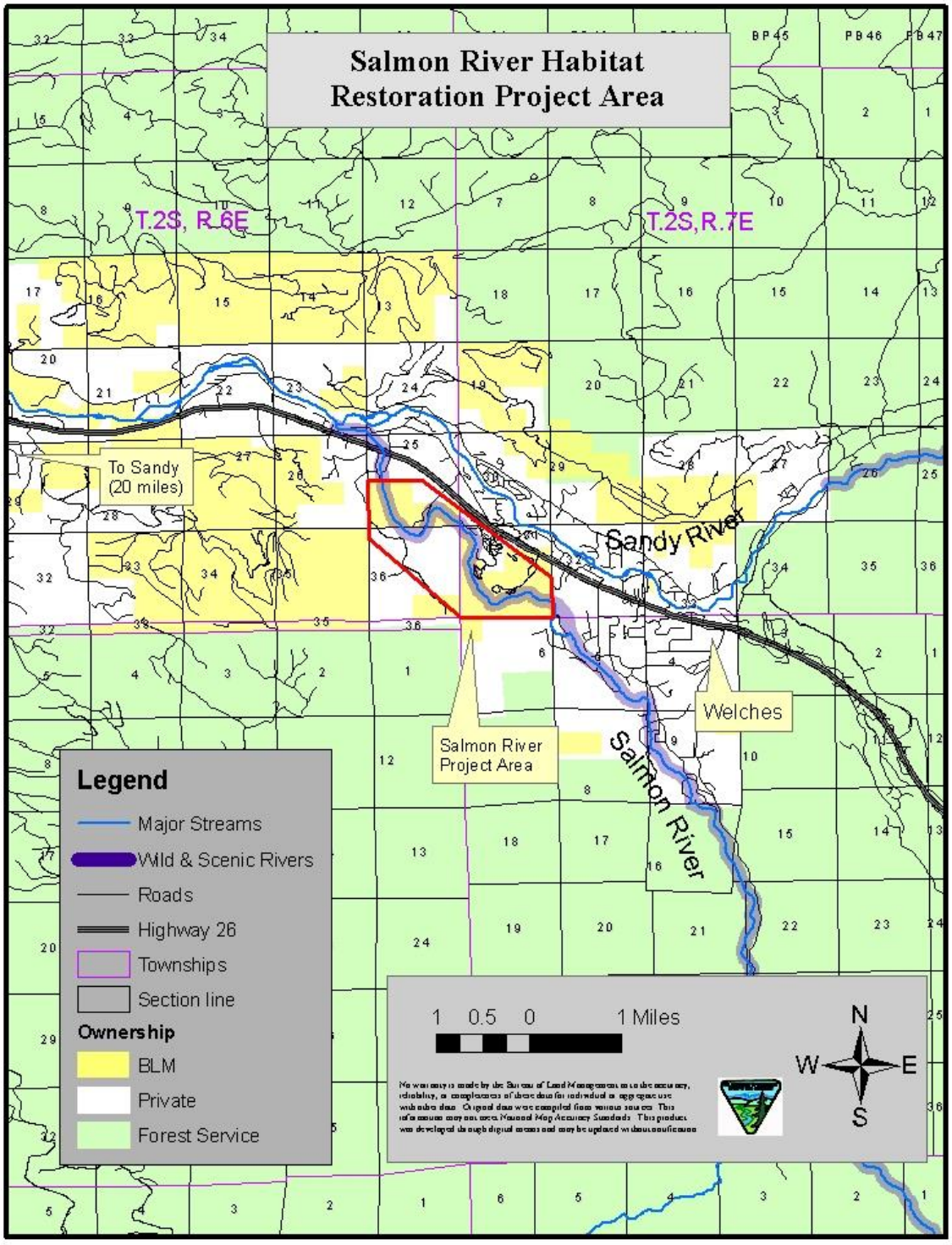
Date 7/15/16

Note: The signed Conclusion on this Worksheet is part of an interim step in the BLM's internal decision process and does not constitute an appealable decision. However, the lease, permit, or other authorization based on this DNA is subject to protest or appeal under 43 CFR Part 4 and the program-specific regulations. The record for the appealable Project Decision is attached to the Salmon River Habitat Restoration Project DNA Worksheet.

DNA Worksheet For Salmon River Restoration Project DOI-BLM-ORWA-S040-2016-0033-DNA 7

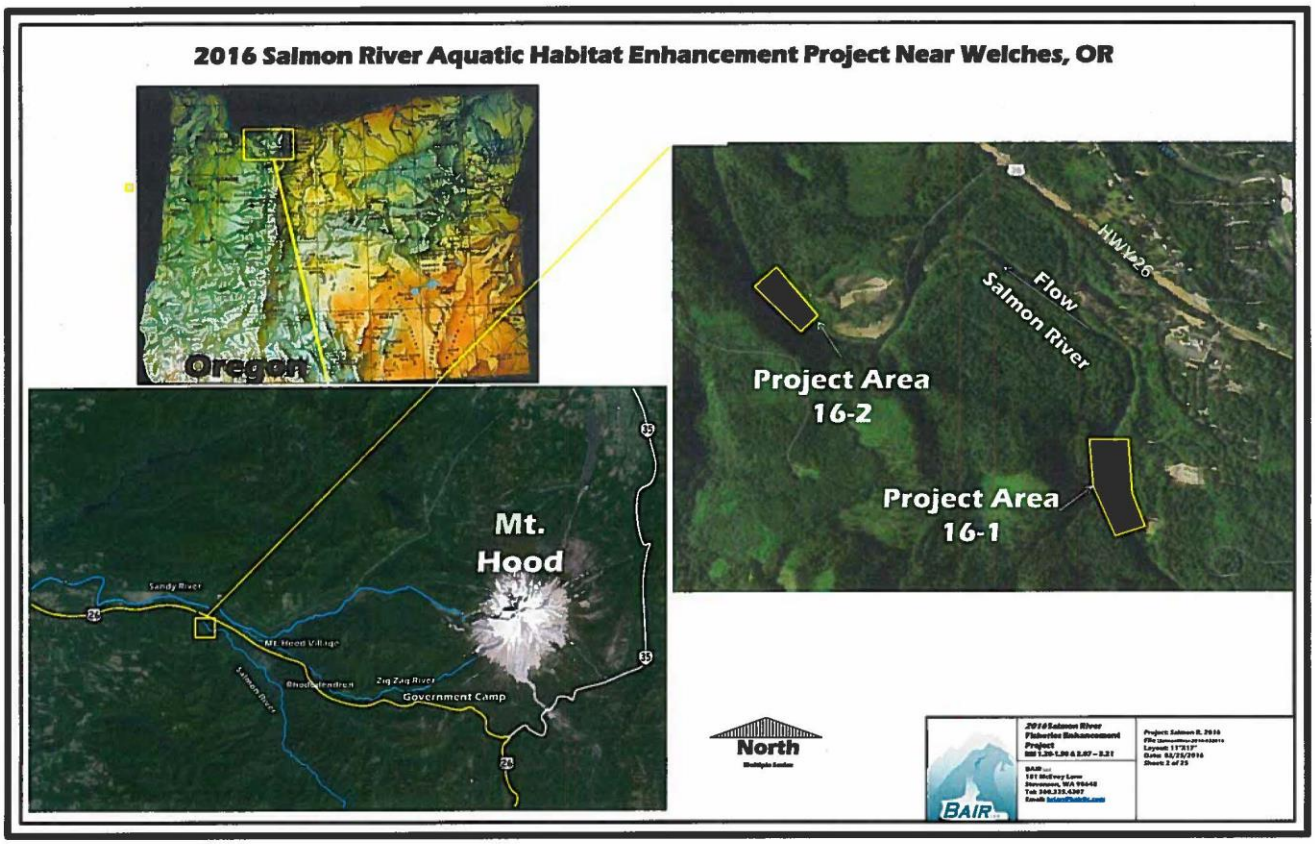
APPENDIX A

Figure 1: Map of Salmon River Habitat Restoration Project Area.

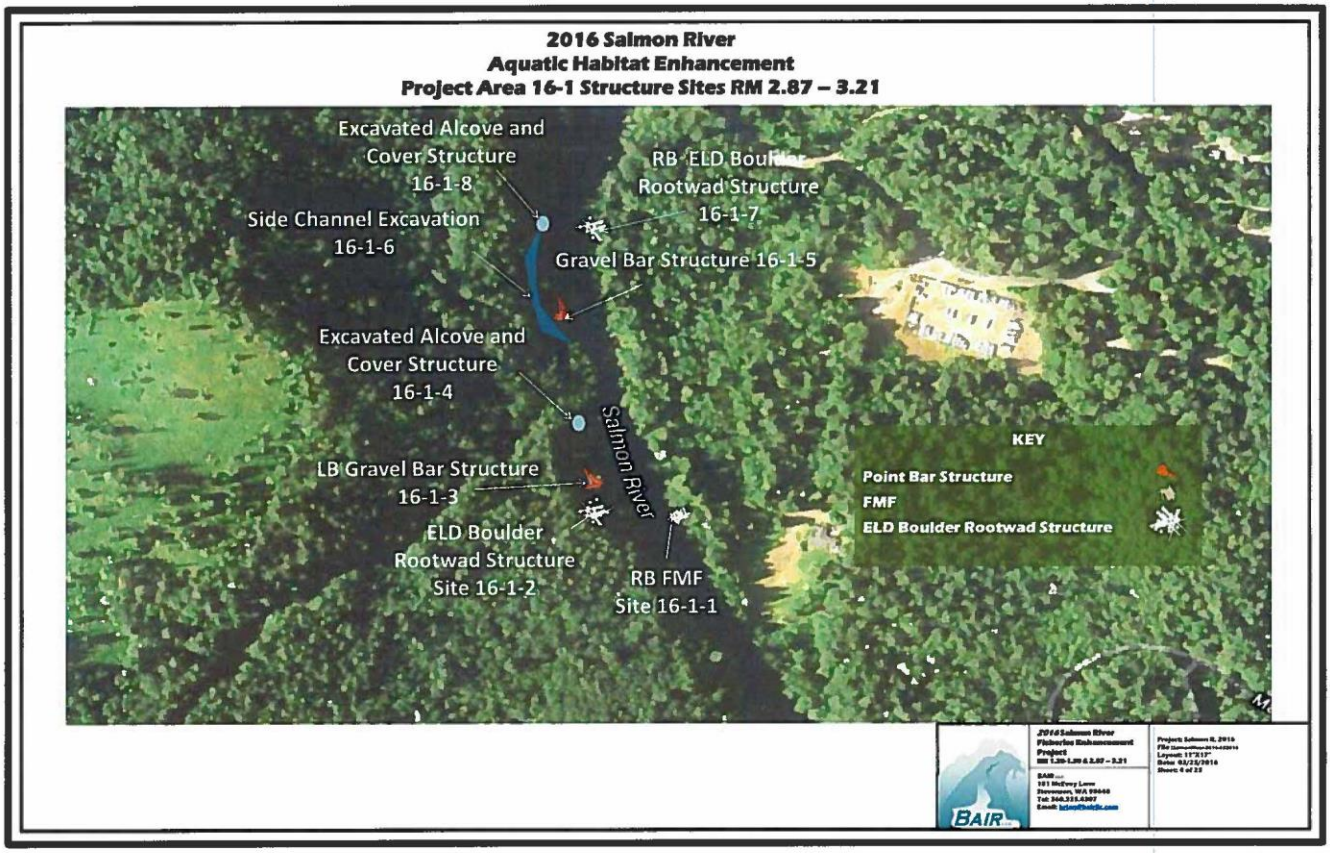


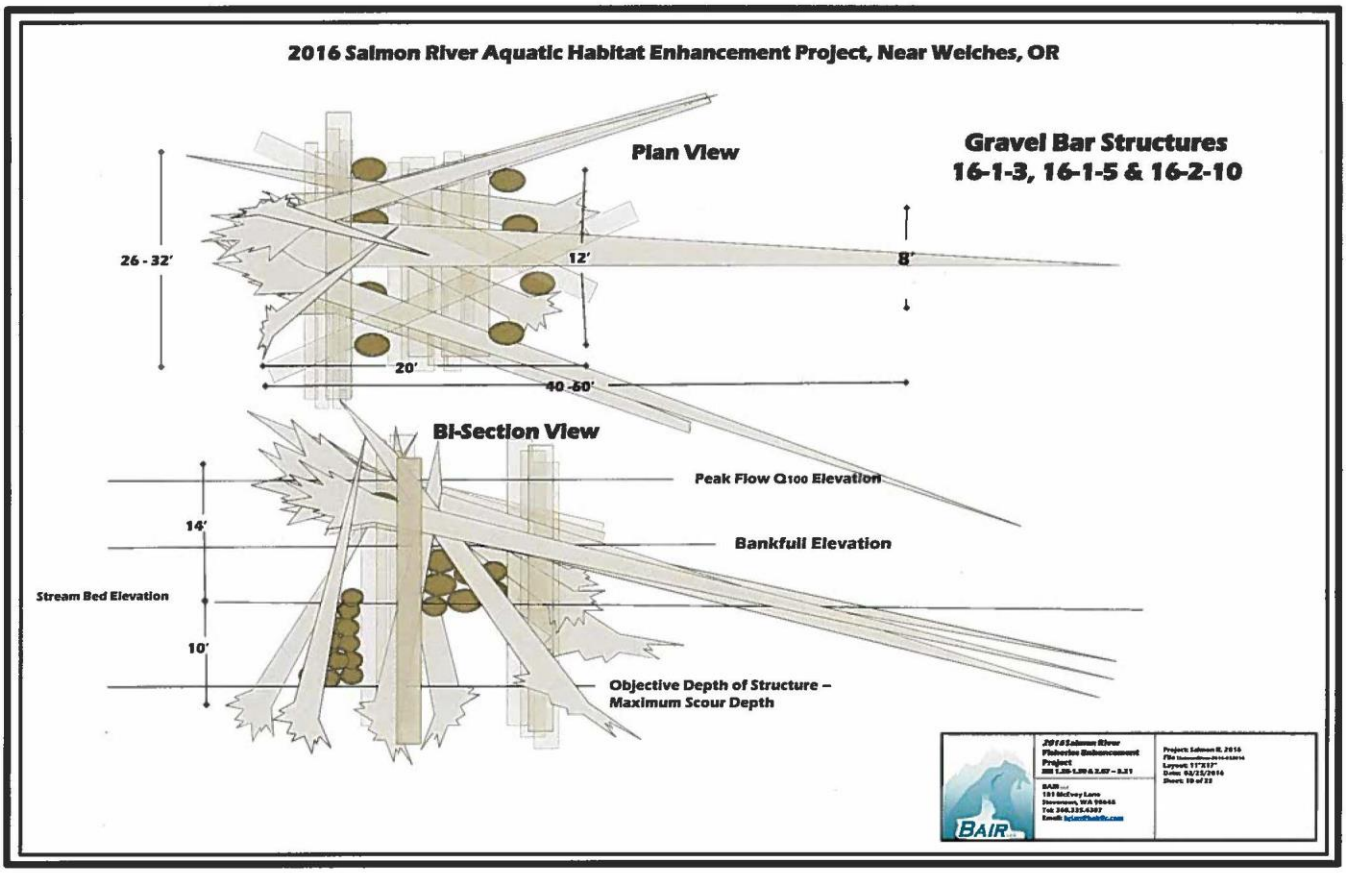
APPENDIX B

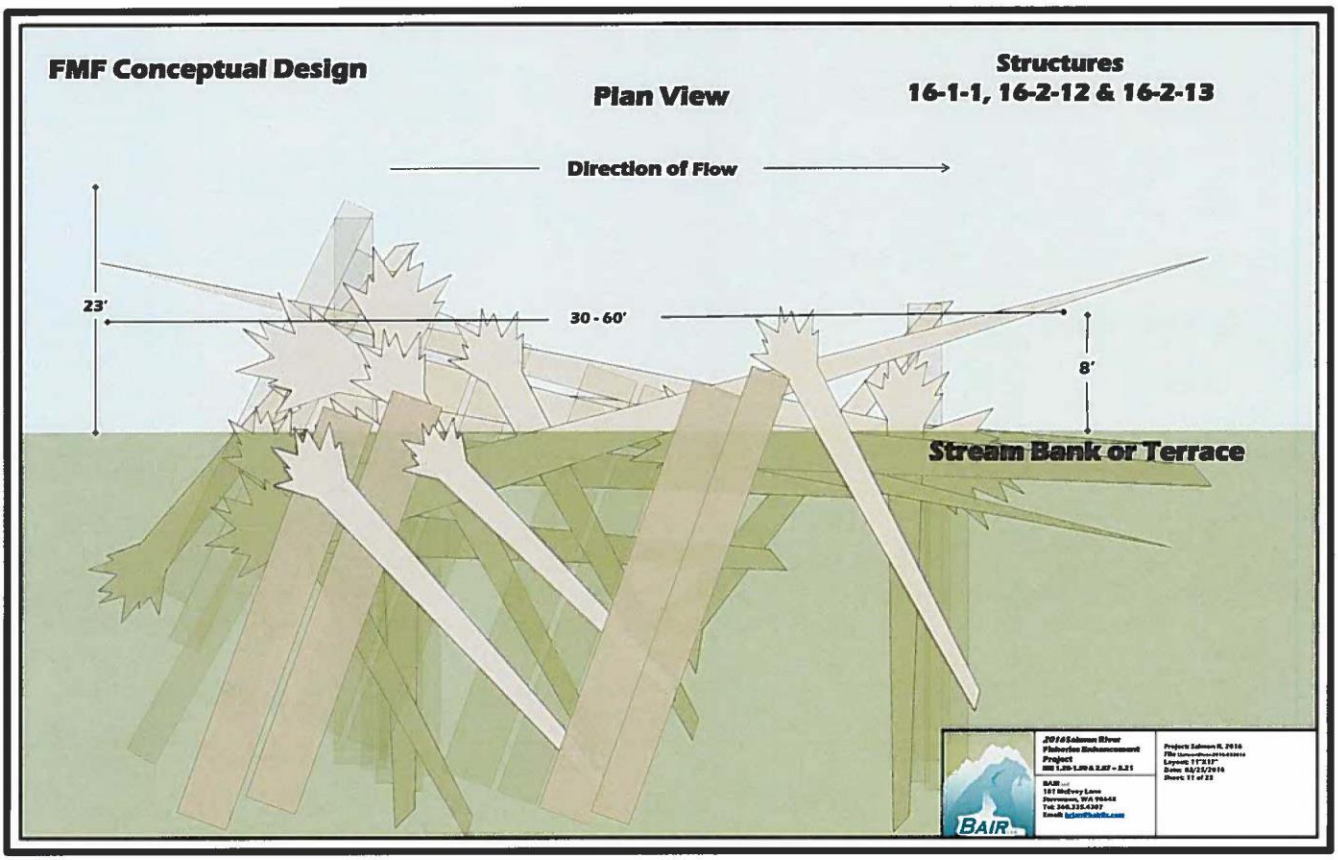
Draft restoration action designs

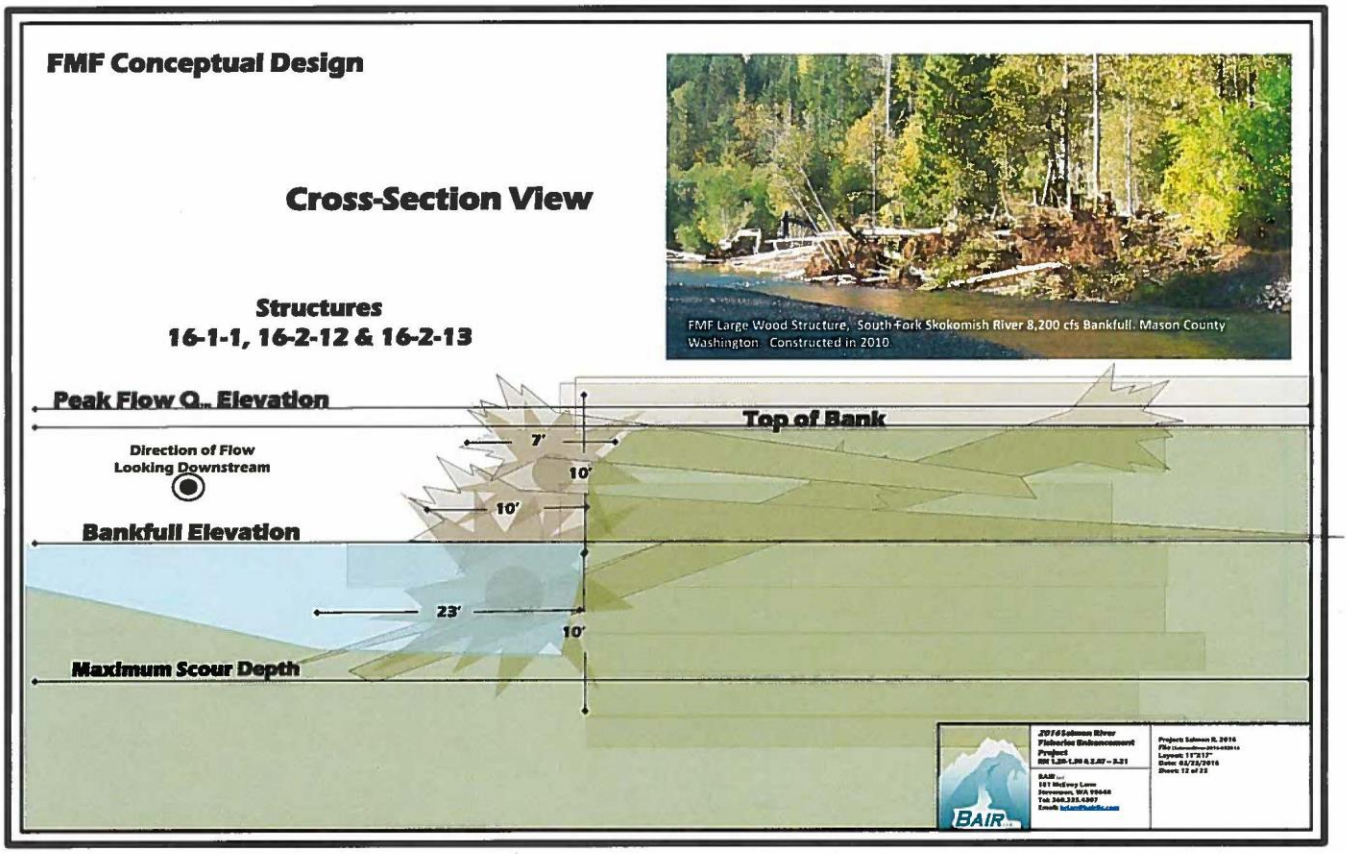


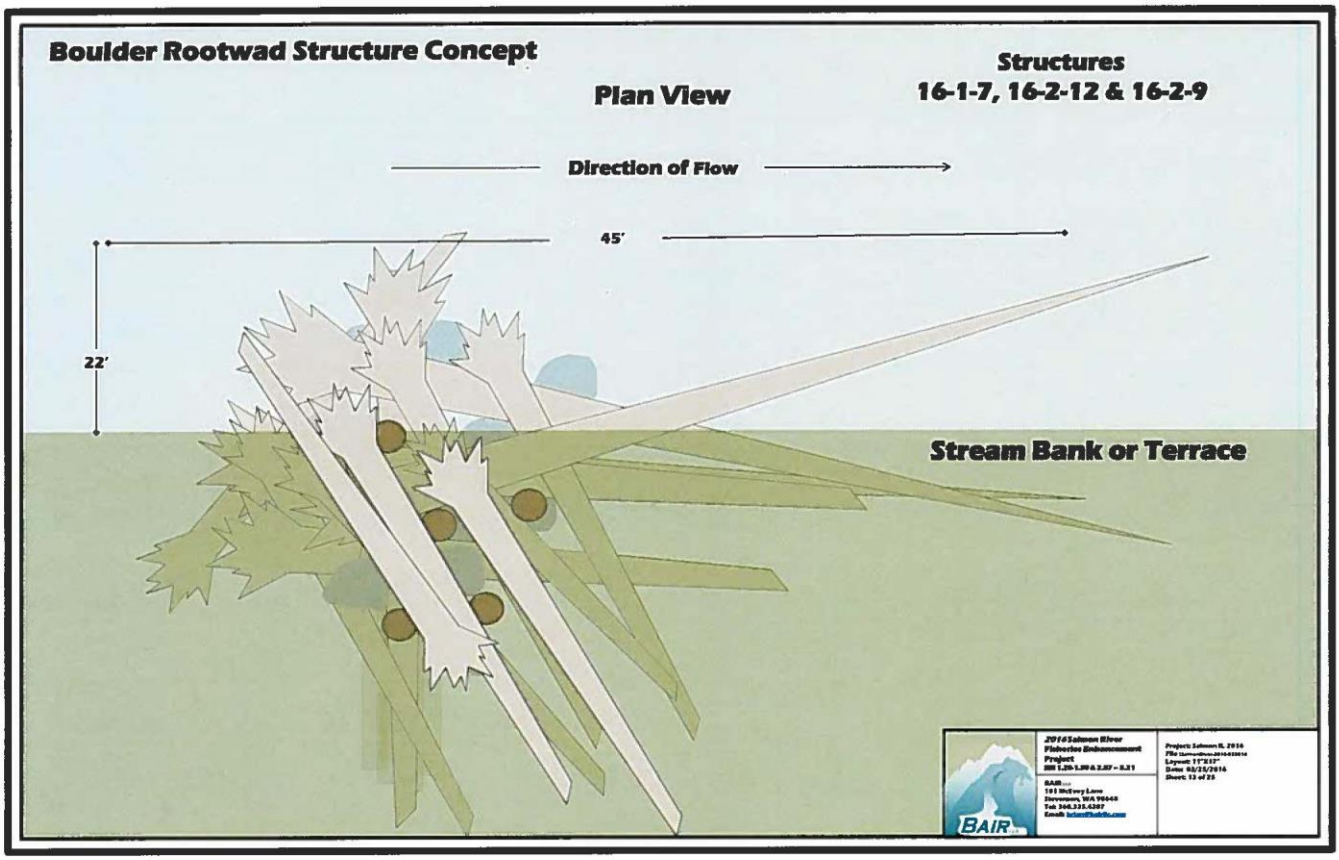

2016 Salmon River
Aquatic Habitat Enhancement Project Area
16-2 Structure Sites RM 1.28 – 1.50
Salmon River
Island Structure
Reinforcement
16-2-14
LB Terrace FMF
Structures
16-2-12 & 13
ELD Boulder Rootwad
Structure
Site 16-2-11
RB Gravel Bar Structure
Site 16-2-10
Side Channel
Excavation 1 & 2
Site 16-2-15
LB ELD Boulder Rootwad
Structure
Site 16-2-9
Salmon River
KEY
Point Bar Structure
FMF
ELD Boulder Rootwad Structure
Google
BAIR

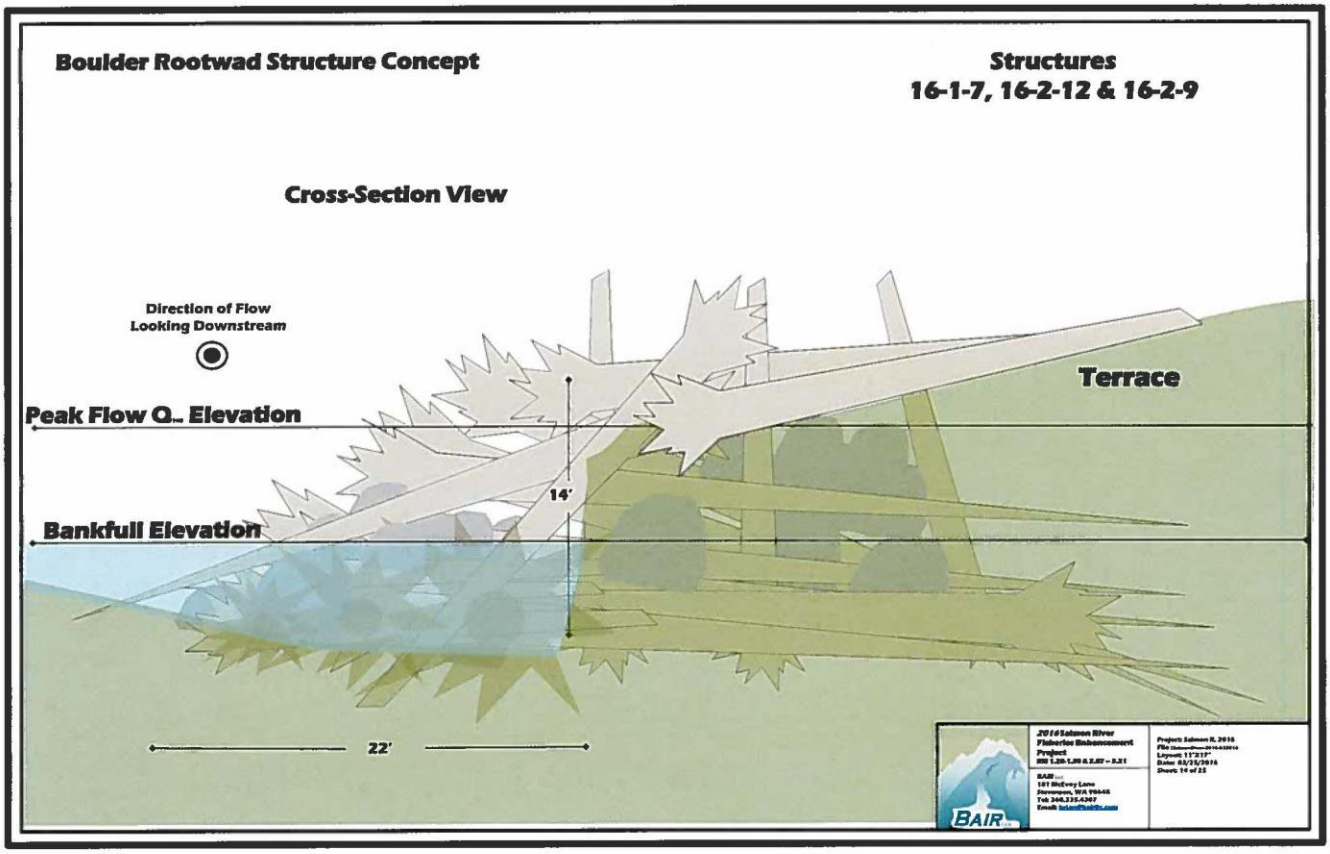

2016 Salmon River
Aquatic Habitat Enhancement
Project Area 16-1 Structure Sites RM 2.87 – 3.21
Excavated Alcove and Cover Structure 16-1-8
Side Channel Excavation 16-1-6
RB ELD Boulder Rootwad Structure 16-1-7
Gravel Bar Structure 16-1-5
Excavated Alcove and Cover Structure 16-1-4
Salmon River
LB Gravel Bar Structure 16-1-3
ELD Boulder Rootwad Structure Site 16-1-2
RB FMF Site 16-1-1
KEY
Point Bar Structure
FMF
ELD Boulder Rootwad Structure
BAIR

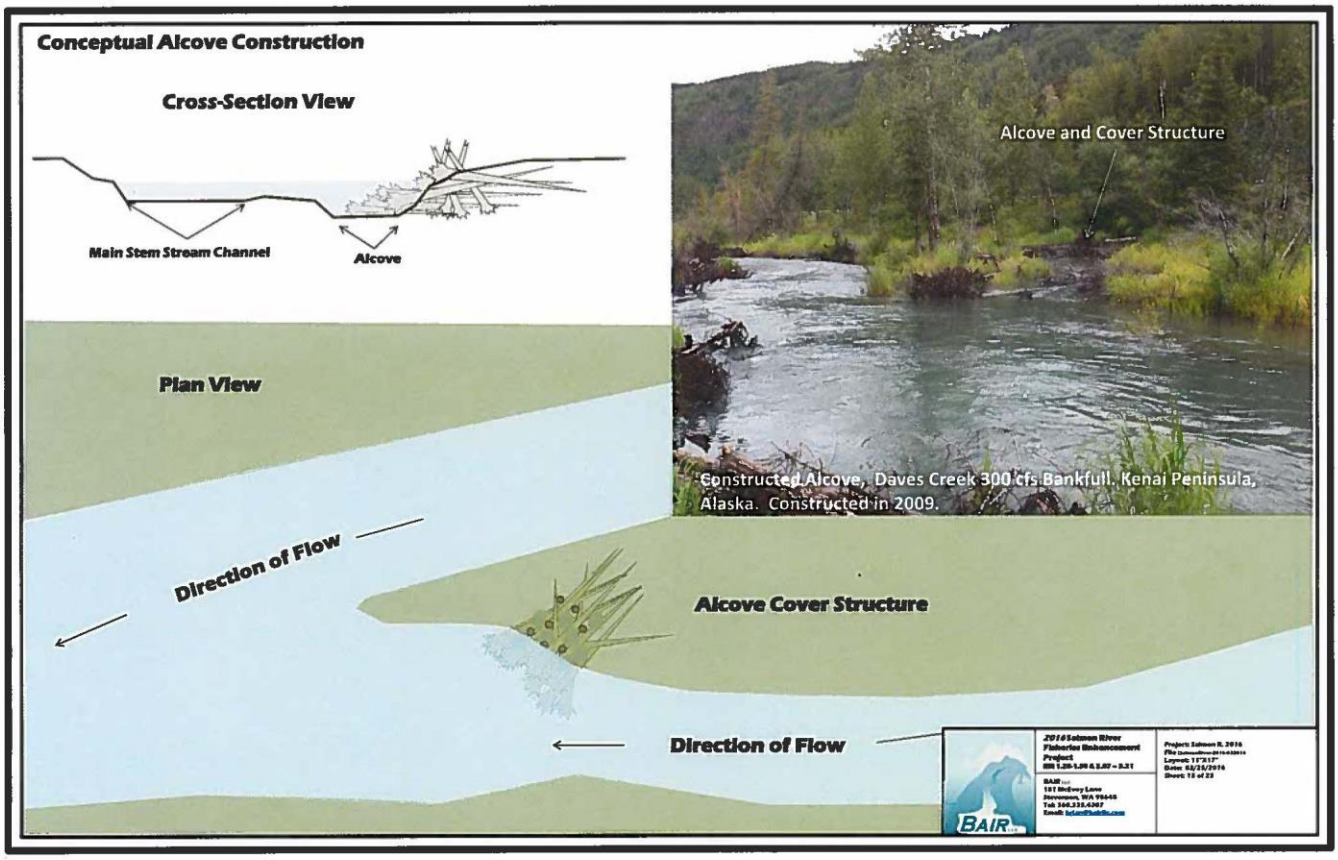

2016 Salmon River Aquatic Habitat Enhancement Project, Near Welches, OR
Plan View
Gravel Bar Structures
16-1-3, 16-1-5 & 16-2-10
26 - 32'
12'
8'
20'
40 -50'
Bl-Section View
Peak Flow Q100 Elevation
14'
Bankfull Elevation
Stream Bed Elevation
10'
Objective Depth of Structure –
Maximum Scour Depth
BAIR


FMF Conceptual Design
Plan View
Structures
16-1-1, 16-2-12 & 16-2-13
Direction of Flow
23'
30 - 60'
8'
Stream Bank or Terrace


FMF Conceptual Design
Cross-Section View
Structures
16-1-1, 16-2-12 & 16-2-13
FMF Large Wood Structure, South Fork Skokomish River 8,200 cfs Bankfull. Mason County Washington Constructed in 2010
Peak Flow Q.. Elevation
Top of Bank
Direction of Flow
Looking Downstream
7'
10'
10'
Bankfull Elevation
23'
10'
Maximum Scour Depth
BAIR


Boulder Rootwad Structure Concept
Plan View
Structures
16-1-7, 16-2-12 & 16-2-9
Direction of Flow
45'
22'
Stream Bank or Terrace


Boulder Rootwad Structure Concept
Structures
16-1-7, 16-2-12 & 16-2-9
Cross-Section View
Direction of Flow
Looking Downstream
Peak Flow Q.. Elevation
Bankfull Elevation
14'
Terrace
22'
BAIR


Conceptual Alcove Construction
Cross-Section View
Main Stem Stream Channel
Alcove
Alcove and Cover Structure
Plan View
Constructed Alcove, Daves Creek 300 cfs Bankfull. Kenai Peninsula, Alaska. Constructed in 2009.
Direction of Flow
Alcove Cover Structure
Direction of Flow

United States Department of the Interior
Bureau of Land Management
Salem District Office
Decision Record
DOI-BLM-ORWA-S040-2016-0033-DNA
Salmon River Restoration Project

Decision

It is my decision to implement the Salmon River Restoration Project (Project), as described in the attached Determination of NEPA Adequacy (DNA) documentation DOI-BLM-ORWA-S040-2016-0033-DNA. The Project meets the criteria for NEPA adequacy in that the answers to the DNA questions show the Project is similar in scope to the Selected Action from the NEPA analysis described in the Salmon River Habitat Restoration Project Environmental Assessment (EA) (DOI-BLM-ORWA-S000-2010-0002-EA). The DNA questions also show that impacts from the Project will be similar as those described in the EA and Decision Record, so the analysis provided in the EA is adequate for the Project.

Decision Rationale

The Project has been reviewed by BLM staff. The Project is in conformance with the 1995 Salem District Record of Decision and Resource Management Plan (as amended). Based on the DNA, I have determined that the existing NEPA documentation fully covers the Project and constitutes BLM's compliance with the requirements of the NEPA (DNA Section B).

Administrative Review or Appeal Opportunities

This decision may be appealed to the Interior Board of Land Appeals (Board or IBLA) according to 43 CFR Part 4 – Department of Interior Hearings and Appeals Procedures, found on the internet at:
http://www.gpo.gov/fdsys/pkg/CFR-2002-title43-vol1/xml/CFR-2002-title43-vol1-part4.xml

Contact Person

For additional information concerning this decision, contact Whitney Wirthlin, Planning and Environmental Specialist, Cascades Field Office at (503) 375-5612.

Implementation Date: This project will be implemented after August 19th, 2016.

Authorized Officer

John Huston
Field Manager, Cascades Field Office

7/19/16
Date